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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/532,770

04/27/2005

Jordi Tormo I Blasco

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EXAMINER

PAK, JOHN D

ART UNIT

PAPER NUMBER

1616

SHORTENED STATUTORY PERIOD OF RESPONSE	NOTIFICATION DATE	DELIVERY MODE
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3 MONTHS

02/26/2007

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Notice of this Office communication was sent electronically on the above-indicated "Notification Date" and has a shortened statutory period for reply of 3 MONTHS from 02/26/2007.

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## Office Action Summary

**Application No.**

10/532,770

**Applicant(s)**

BLASCO ET AL.

**Examiner**

JOHN PAK

**Art Unit**

1616

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-9 and 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 11-20 is/are rejected.
- 7) ☒ Claim(s) 6-9 and 19-20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |  |
|--|--|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input checked="" type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. <u>20070216</u> .                           |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application  |
| Paper No(s)/Mail Date _____.   | 6) <input type="checkbox"/> Other: _____.                          |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/3/2007 (request for entry of the amendment filed on 11/6/2006) has been entered.

Claims 1-9 and 11-20 are pending in this application.

Applicant is advised that claim 1 seems to require more than one amide of formula II due to the recitation of the plural "amide compounds" at line 5. Hence, claim 1, if read literally, would exclude a mixture of formula I compound + one compound of formula I. However, evidence such as claim 3 and specification data would seem to indicate otherwise. It is strongly urged that applicant adopt appropriate language throughout the claims to amend the claims.

It is noted for the record that during a telephone interview on 2/16/2007, applicant's attorney, Mr. Meikle, stated that the formula in claim 3 should actually show a 2-Cl instead of 2-CH<sub>3</sub> on the pyridine ring in the structure drawing. The Examiner notes herein that claim 3 names the compound as II-5, and applicant's specification page 3 confirms that the substituent on the 2-position of the pyridine ring for II-5 is Cl.

Claims 6-9 and 19-20 are objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form.

Upon reconsideration, it has been determined that dependent claims 6-9 and 19-20 are improperly dependent on independent claim 1, either directly or indirectly. Claim 1 is directed to a mixture of compounds. Claims 6-9 and 19-20 are open to using the individual components of the mixture separately. This makes these dependent claims improperly dependent on claim 1 since claim 1 is limited to the mixture.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-9 and 11-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over the combined teachings of WO 98/46607 and Eicken et al. (US 5,589,493) in view of the acknowledged prior art.

WO 98/46607 discloses the fungicidal activity of applicant's triazolopyrimidine of formula I. See page 3, lines 5-15; Example 2 on page 20. The compound is disclosed

to have enhanced systemic activity and enhanced toxicity to fungi (page 7, lines 8-11). Various solid and liquid formulations are disclosed (pages 13-17). **Combined use, including synergistic effect/use, with myriad other fungicides is disclosed** (page 17, line 7 to page 19, line 2; see in particular page 17, lines 12-13). Application to soil, seeds or directly onto plants is disclosed (page 19, lines 2-19). Protection of crops such as cereals, solanaceous crops, vegetables, legumes, apples, vines against phytotoxic fungi is disclosed (paragraph bridging pages 11-12). 0.5-95 wt% formulations are disclosed (page 12, lines 14-15). 0.01-10 kg/ha application rate is disclosed (page 15, lines 10-12).

Eicken et al. disclose the fungicidal activity of applicant's amide compounds of formula II. See Eicken's claims 2-13 and 15; column 32, line 46. Eicken's claim 12 is specifically directed to applicant's compound of formula II-5 (using the more accurate specification definition of II-5; see also attached Interview Summary Record). Various solid and liquid formulations are disclosed (column 32, line 47 to column 33, line 60). The amide compounds are disclosed to be "extremely effective on a broad spectrum of phytopathogenic fungi" (column 34, line 56 to column 35, line 5). Application to seeds and protection of various crops are disclosed (id.). 0.1-95 wt% formulations are disclosed (column 35, lines 9-10). Application rate of 0.02-3 kg/ha is disclosed (column

35, lines 12). **Combined use with other fungicides “frequently results in greater fungicidal action spectrum”** (column 35, lines 20-22). Various other co-fungicides are disclosed (column 35, line 26 to column 37, line 12).

Applicant acknowledges in the specification that both formula I and formula II compounds are known for their fungicidal properties, and both compound types have been combined with other active compounds (specification pages 1-2).

Although the cited prior art does not expressly disclose the specific combination of formula I + formula II fungicides, their combination as claimed by applicant would have been fairly suggested. First, both formula I and formula II compounds are known fungicides, known to protect valuable crop plants from pathogenic fungi. Second, both formula I and formula II fungicides are known to be useful together in combination with other fungicides, resulting in at least increased efficacy or spectrum. Third, one having ordinary skill in the art would have been motivated to combine two such excellent fungicides in order to obtain the benefits of both fungicides. Fourth, both fungicides have similar formulation concentration ranges and comparable application rates, and one having ordinary skill in the art would have been motivated to adjust and optimize the concentration and application rates of the two component fungicides to arrive at the mixture concentration and mixture application rates, based on the individual concentration and application rates taught by the prior art. Since formula I can be

formulated as a 0.5-95 wt% formulation and formula II can be formulated as a 0.1-95 wt% formulation, their combination in the ratio claimed by applicant in the instant claims would have been obvious.

Therefore, the claimed invention, as a whole, would have been prima facie obvious to one of ordinary skill in the art at the time the invention was made, because every element of the invention and the claimed invention as a whole have been fairly disclosed or suggested by the teachings of the cited references.

In this regard, applicant's specification data has been reviewed for evidence of nonobviousness, but it must be noted that the data there falls woefully short of being commensurate in scope with that of the claimed subject matter. Only I + II-5 was tested, and even for that combination only with respect to two crops at extremely dilute concentration ranges. There is insufficient evidence to show that the data provided by applicant is sufficient to overcome the obviousness (established above) of untested mixture of compounds and/or untested crops at untested ratios and concentrations. Since the claim scope is far broader than applicant's data, applicant must provide additional evidence or arguments to establish why the limited data should be considered probative evidence of nonobviousness for the entire scope of the claimed subject matter. As nonobvious results cannot be predicted from compound to compound, in the absence of additional evidence to the contrary, applicant's evidence must be deemed insufficient.

Applicant's arguments relative hereto, filed on 1/3/2007, have been given due consideration but they were deemed unpersuasive.

Applicant repeats the arguments of record, which have all been properly addressed in prior Office actions. Applicant further argues that the proposed combination of compounds in the cited prior art references "differ significantly with respect to chemical structures" when compared to the combined compounds recited in the present claims. Thus, applicant argues, the cited prior art references "fail to provide an adequately specific suggestion to combine the claimed compounds together in support of prima facie obviousness."

This argument is unfounded. The Examiner's reasoning is repeated herein again. Although the cited prior art does not expressly disclose the specific combination of formula I + formula II fungicides, their combination as claimed by applicant would have been fairly suggested. First, both formula I and formula II compounds are known fungicides, known to protect valuable crop plants from pathogenic fungi. The Examiner maintains that this first reason is sufficient motivation to arrive at applicant's claimed invention. Nonetheless, there are additional reasons. Second, both formula I and formula II fungicides are known to be useful together in combination with other fungicides, resulting in at least increased efficacy or spectrum. Third, one having ordinary skill in the art would have been motivated to combine two such excellent fungicides in order to obtain the benefits of both fungicides. Fourth, both fungicides



have similar formulation concentration ranges and comparable application rates, and one having ordinary skill in the art would have been motivated to adjust and optimize the concentration and application rates of the two component fungicides to arrive at the mixture concentration and mixture application rates, based on the individual concentration and application rates taught by the prior art. Since formula I can be formulated as a 0.5-95 wt% formulation and formula II can be formulated as a 0.1-95 wt% formulation, their combination in the ratio claimed by applicant in the instant claims would have been obvious.

Applicant has argued before that even if the Examiner has made a prima facie case of obviousness, applicant's supposed evidence of unexpected results overcomes the Examiner's position. Applicant relies on specification Tables B and D. However, the Examiner maintains again that the specification evidence falls woefully short of being commensurate in scope with that of the claimed subject matter. The following comparison of scope may help applicant better understand the Examiner's position of record:

	Scope of applicant's claims	Scope of Tables A, B, C and D
Compound of formula II	X <sup>1</sup> and X <sup>2</sup> can be structurally different moieties, such as halogen, C1-8 alkylsulfinyl or C1-8 alkylsulfonyl, wherein the number of such substituents can be as many as 9.	Only II-5 (boscalid) was tested, which corresponds to X <sup>1</sup> =Cl and X <sup>2</sup> =Cl in formula II-1 (see also the compound of claim 3).
Concentration or amount of formula II compound used or to be used in combination with formula I compound	<p>(1) Amount of formula II compound is open, albeit somewhat limited by "synergistically effective amount" language in claim 1. However, since synergism has many different meanings and many different methods of evaluation, including synergism in activity, synergism in speed, synergism in spectrum, synergism via different calculations, the Examiner cannot afford sufficient weight to this claim language.</p> <p>(2) Amount of formula II compound is open to amounts that are <b>fungicidally effective</b>.</p> <p>(3) Amount of formula II compound is open to <b>100 times more than formula I</b>, by weight (see claim 4). Since claim 1 does not recite the limitation of claim 4, it is even broader than claim 4 in ratio.</p>	<p>(1) II-5 was tested at 4 and 0.25 ppm in Tables A &amp; B.</p> <p>II-5 was tested at 1 and 0.25 ppm in Tables C &amp; D.</p> <p>(2) All tested II-5 concentrations were fungicidally ineffective -- 0% control.</p> <p>(3) The highest tested ratio of II-5 : I was 4:1.</p>

Clearly, applicant's test data is quite limited in terms of its scope. Applicant merely took an ineffective amount of only II-5 and added it to an amount of compound I, which had significant activity. In such a case as here, it is difficult to predict how other concentrations of II-5 (or other concentrations of other structurally divergent compounds of formula II, for that matter) would combine with the compound of formula I. While applicant may have shown synergistic results under such severely limited and controlled parameters, it must be kept in mind that II-5 is a known fungicide, as are the rest of compounds of formula II; and the claims read on the use of these known fungicides at their known fungicidal concentrations and amounts, particularly at higher ratios such as 100:1 (II : I). Since applicant's data is so limited in terms of compound selection and concentration selection, one skilled in the art would not be able to expect extrapolation of such data when structurally divergent formula II compounds are used, or even when II-5 is used at higher ratios or at higher concentrations. Objective evidence of nonobviousness must be commensurate in scope with that of the claimed subject matter, and applicant has failed to provide such commensurate evidence.

For these reasons, all claims must be rejected again.


Any inquiry concerning this communication or earlier communications from the Examiner should be directed to JOHN PAK whose telephone number is **(571)272-0620**. The Examiner can normally be reached on Monday to Friday from 8 AM to 4:30 PM.

If attempts to reach the Examiner by telephone are unsuccessful, the Examiner's SPE, Johann Richter, can be reached on **(571)272-0646**.

The fax phone number for the organization where this application or proceeding is assigned is **(571)273-8300**.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571)272-1600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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